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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,869	08/20/2001	William Michael Scheper	7442	5587

27752 7590 12/29/2005

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EXAMINER

BOYER, CHARLES I

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/913,869

Applicant(s)

SCHEPER ET AL.

Examiner

Charles I. Boyer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,10-12,15,16,18-26 and 41-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,10,12,15,16,18-21,26 and 41-46 is/are rejected.
- 7) ☒ Claim(s) 11 and 22-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This action is responsive to applicants' amendment and response received October 7, 2005. Claims 1, 10-12, 15, 16, 18-26, and 41-46 are currently pending.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 refers to a capped nonionic surfactant, however the formula for this "capped" surfactant allows for uncapped surfactants. Typically, in nonionic detergents, the end-cap group is a single moiety, such as a short-chain alkyl, acid, or alcohol group. While butylene oxide may be used as a capping group, it would typically be a single butylene oxide, or several butylene oxides at the most. The fact that as many as ten butylene oxides may be present in the nonionic surfactant presently claimed is inconsistent with a capping group as understood in the detergent art. Such a surfactant is merely a block copolymer alkoxylated surfactant, very well known in the art. While the examiner acknowledges that copolymers containing butylene oxide are much less common in the art than their EO/PO counterparts, nevertheless they are hardly unknown.

#### ***Claim Rejections - 35 USC § 102***

The rejection of claims 1, 10-12, 15-16, 18-19, 22-23, 42-43 and 45 under 35

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U.S.C. 102(b) as being anticipated by US Pat. 4,973,423 to Geke et al is withdrawn in view of applicants' amendment and response.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The rejection of claims 20-21, 25, 41, 44 and 46 under 35 U.S.C. 103(a) as being unpatentable over Geke et al '423 as applied to claims 1, 10-12, 15-16, 18-19, 23-24 and 42-46 above, and further in view of WO 95/34633 to Lentsch et al/ECOLAB INC is withdrawn in view of applicants' amendment and response.

4. Claims 1, 12, 15, 16, 26, 41-43, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabriel et al, US 5,510,047.

Gabriel teaches thixotropic liquid detergent compositions useful as dishwashing detergents (see abstract). Suitable nonionic surfactants of the invention include EO/PO block copolymers capped with a butylene oxide group (col. 7, lines 36-48). Note that the amounts of EO and PO for this surfactant overlap those presently claimed, and so the examiner maintains such a surfactant will necessarily possess an X/Y number greater than 1. Note that typical additives for use in detergent compositions may be used in these compositions, such as

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additional surfactants, builders, bleaches, and in particular, enzymes (cols. 8-14).

Gabriel does not specifically teach a butylene-oxide capped surfactant in conjunction with an enzyme, however as both of these components are taught as suitable or preferred by Gabriel, it would have been obvious to one of ordinary skill in the art to prepare a composition containing these components based on the teachings of the reference.

5. Claims 1, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gladfelter et al, US 6,211,129.

Gladfelter et al teach solid cast detergent compositions useful as laundry and dishwashing detergents (see abstract). Suitable nonionic surfactants of the invention include a butylene oxide capped alcohol ethoxylate wherein the surfactant contains from 3.5 to 10 ethoxy groups and from 0.5 to 1.5 butylene oxide groups (col. 7, lines 50-54). As the amounts of EO and BO for this surfactant overlap those presently claimed, the examiner maintains such a surfactant will necessarily possess an X/Y number greater than 1. Note that typical additives for use in detergent compositions may be used in these compositions, such as additional surfactants, builders, bleaches, and in particular, enzymes (cols. 5-8). Gladfelter does not specifically teach a butylene-oxide capped surfactant in conjunction with an enzyme, however as both of these components are taught as suitable or preferred by Gladfelter, it would have been

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obvious to one of ordinary skill in the art to prepare a composition containing these components based on the teachings of the reference.

6. Claims 1, 10, 18-21, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki et al, US 4,405,484.

Miyazaki et al teach a zeolite powder for incorporation as a builder into granular detergents (see abstract). Suitable nonionic surfactants of the invention include an alkyl group with from 1 to 30 moles of added ethylene oxide/butylene oxide at a ratio of from 0.1:9.9 to 9.9:0.1 (col. 10, lines 11-16). Note that the amounts of EO and BO for this surfactant overlap those presently claimed, and so the examiner maintains such a surfactant will necessarily possess an X/Y number greater than 1. Note that typical additives for use in detergent compositions may be used in these compositions, such as additional surfactants, builders, bleaches, and in particular, enzymes (col. 14, lines 28-63). Miyazaki et al do not specifically teach a butylene-oxide capped surfactant in conjunction with an enzyme, however as both of these components are taught as suitable or preferred by Miyazaki et al, it would have been obvious to one of ordinary skill in the art to prepare a composition containing these components based on the teachings of the reference. With respect to the bulk density of the presently claimed granular compositions, as the bulk density ranged claimed is well within typical bulk densities for granular detergents, selection of a bulk density within this range is an obvious design choice to one of ordinary skill in the art. Though

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a bleach activator is not specifically taught by the reference, the bleach activators claimed are extremely common in the art and do not constitute an unobvious modification over the teachings of the prior art.

***Allowable Subject Matter***

7. Claims 11, and 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles I. Boyer whose telephone number is 571 272 1311. The examiner can normally be reached on M-F 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571 272 1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

